

CHAPTER 14

NIKE-HERCULES GUIDED MISSILE TRAINING BODY

SECTION M84

SECTION I. GENERAL

14-1. Scope

a. The purpose of this chapter is to provide information for the operation and organizational maintenance of NIKE-HERCULES guided missile training body section M84 (fig. 14-1). This chapter includes physical description, assembly and handling operations, and corrective maintenance for the organizational maintenance technician. In general, the prescribed maintenance responsibilities of the operator and the organizational maintenance technician will apply as reflected in the allocation or repair parts in TM 9-1410-250-25P/1/1.

b. Training body section M84 is used primarily to provide a handling fixture for the training warhead section. The external configuration of M84 is similar to that of the rear body section of the guided missile, and consists of the components, or simulated components, required to train personnel in basic assembly and handling procedures for the rear body section of the guided missile. M84 also serves as a connecting section between the training warhead section and the rocket motor cluster trainer.

c. The trainer forward main fins, trainer rear main fins, and trainer elevons are not interchangeable with those of the guided missile.

CAUTION: A component that has been installed on training body section M84 will not subsequently be installed on a tactical missile.

14-2. Difference Among Models

a. General. Two models of M84 exist: 1001 through 1160 and 2001 through 2050. A basic difference between the two may be found in the index pin. Minor differences are found in the thermal battery bracket, the trainer motor section access doors, the IGNITOR access cover plate, the equipment section access cover plates, and the actuator section door assemblies.

b. Basic Differences. M84, 1001 through 1160, is equipped with index pin 9029046. M84, 2001 through 2050, is equipped with either index pin 9029046 or index pin 8162978 and shim 9031201.

SECTION II. PHYSICAL DESCRIPTION

14-3. General

a. M84 (fig. 14-1) consists of a trainer body section and four trainer fins. The trainer body section consists of a trainer motor section, a trainer equipment section, and a trainer actuator section. The trainer main fins consists of the trainer forward main fins, trainer rear main fins, and trainer elevons.

b. Training body section M84 is painted olive drab and external markings are painted white.

14-4. Trainer Motor Section

The trainer motor section is formed of aluminum skin riveted to five structural members. The motor section equipment consists of a for-

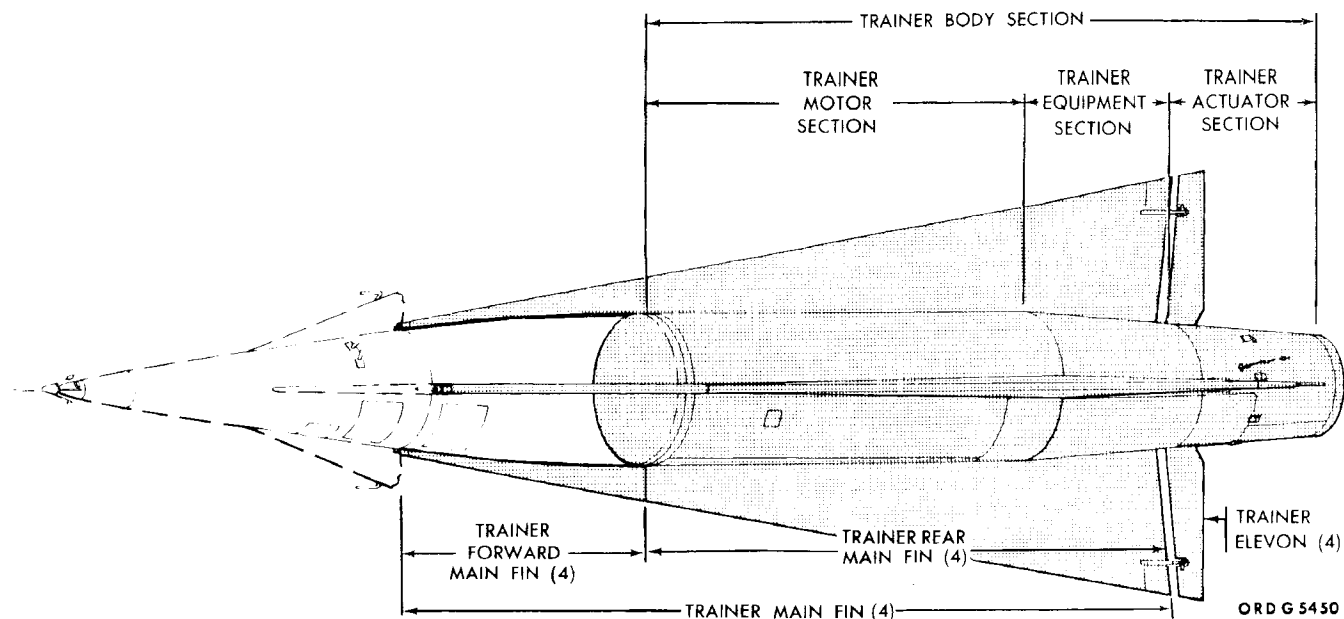


Figure 14-1. NIKE-HERCULES guided missile training body section M84.

ward dome dummy heater assembly (4, fig. 14-2), a forward dome heater assembly cap (5), and a receptable dummy connector (1). The two motor section access doors (2), one on each side of the rear portion of the motor section, provide access to internal equipment. An IGNITOR access cover plate (7) is located on the right side of the motor section.

14-5. Trainer Equipment Section

The trainer equipment section (fig. 14-3) is formed of aluminum skin riveted to structural members. The equipment contained in the equipment section consists of a cable support simulating the missile distribution box, the forward portion of the trainer blast tube and closure installation, and necessary ballast. The trainer umbilical cable assembly passes through the trainer skin in the lower portion of the equipment section. Two equipment section access cover plates, one on each side of the equipment section, provide access to internal equipment.

14-6. Trainer Actuator Section

The trainer actuator section is formed of aluminum skin riveted to three structural frames. The actuator section equipment consists of a

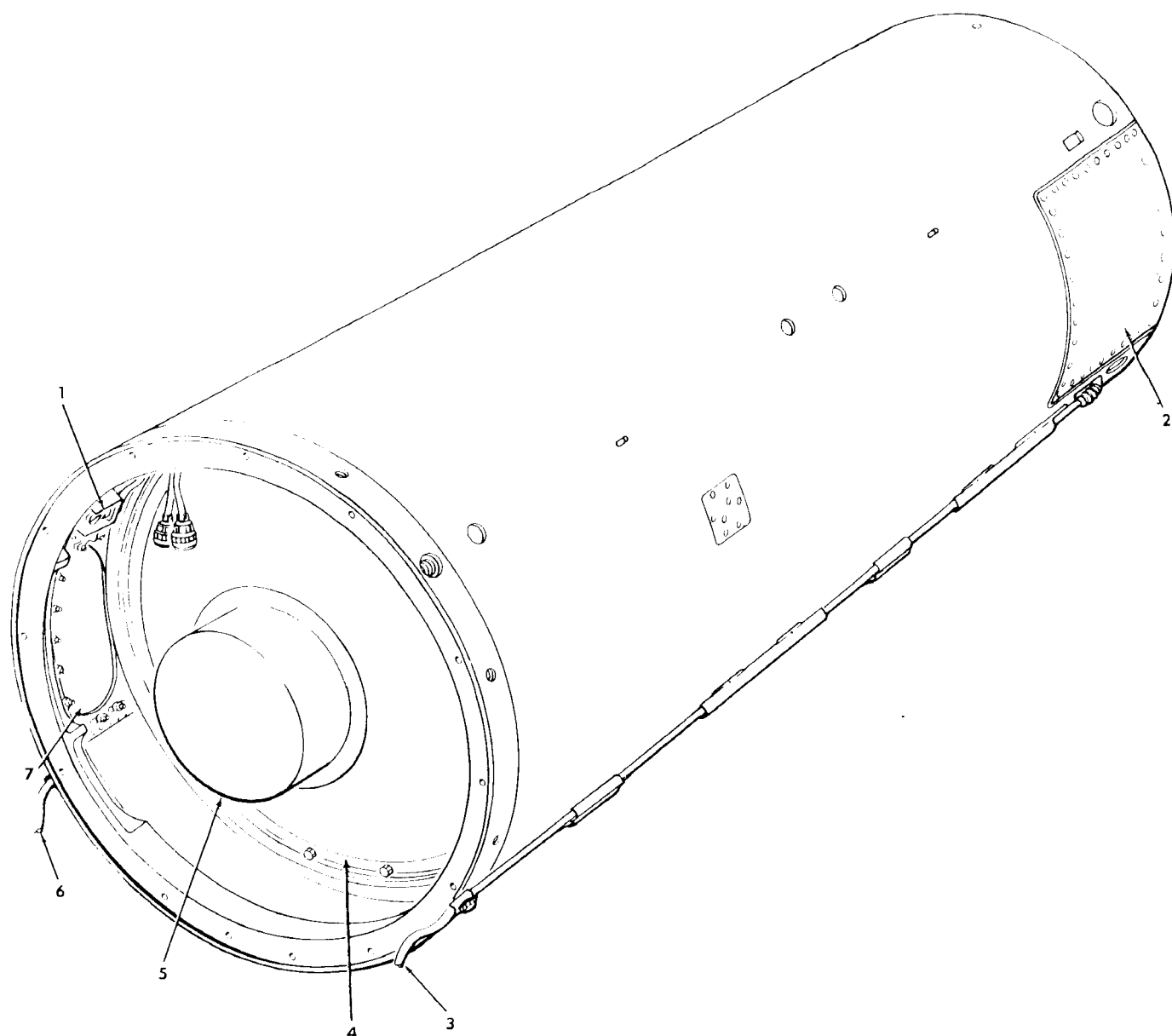
lanyard assembly (2, fig. 14-4) a bracket assembly (5) and plug (4) or a plate (3) for attaching the lanyard assembly, and ballast (6). The rear portion of the trainer blast tube and closure installation (1) is located in this section. Eight alinement spacers (7) are located at equal intervals around the center circumference of the actuator section. Two actuator section door assemblies (8), one on each side of the actuator section, provide access to internal equipment.

14-7. Trainer Main Fin

a. The trainer four main fins (fig. 14-1), located at 90-degree angles around the circumference of the training warhead section and trainer body section, are alined with the four forward fins on the training forward body section. Each trainer main fin consists of a trainer forward main fin, trainer rear main fin, and trainer elevon.

b. Each trainer forward main fin is attached to and extends the entire length of the training warhead section. Each trainer forward main fin is formed of aluminum skin attached to structural members.

c. Each trainer rear main fin is attached to and extends most of the length of the trainer body section. Each trainer rear main fin is



ORD G 5534

- 1—Receptacle dummy connector
- 2—Motor section access door (2)
- 3—Trainer warhead wiring harness
- 4—Forward dome dummy heater assembly

- 5—Forward dome heater assembly cap
- 6—Trainer transponder control group wiring harness
- 7—IGNITOR access cover plate

Figure 14-2. Trainer motor section.

formed of aluminum skin attached to several structural members.

d. Each trainer elevon is attached to the trailing edge of a trainer rear main fin and secured to the trainer actuator section.

14-8. Trainer Body Section External Markings

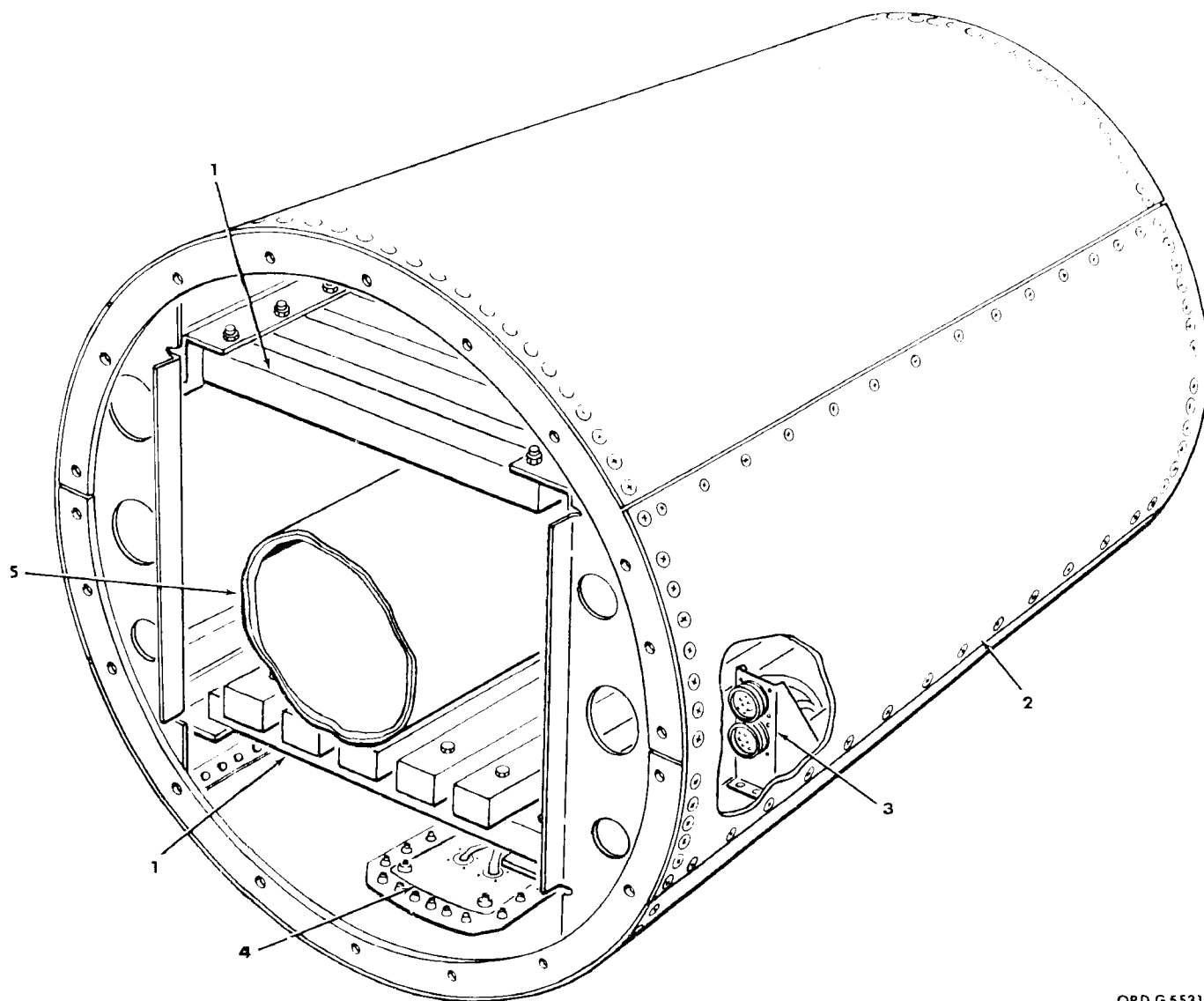
The external markings are listed in table 14-1 and illustrated in figures 14-5 and 14-6.

Table 14-1. Trainer Body Section External Markings

Markings	Trainer body section reference station	Between fins number
U. S. ARMY	150.000	2 and 3 1 and 4
SERIAL NO.	150.000	2 and 3 1 and 4
	247.500	1 and 4 2 and 3
INERT	150.000	2 and 3 1 and 4
IGNITOR	156.125	2 and 3

Table 14-1. Trainer Body Section External Markings—Continued

Markings	Trainer body section reference station	Between fins number
Caution: Remove door before installing or removing motor.		
	172.250	1 and 4
	212.250	2 and 3
GROUND POWER RECEPTACLE	255.000	3 and 4
APS EXHAUST	247.500	2 and 3
APS SERVICE DOOR	277.431	2 and 3
USE BA472 BATTERY	285.875	1 and 4



ORD G 5531

1—Ballast

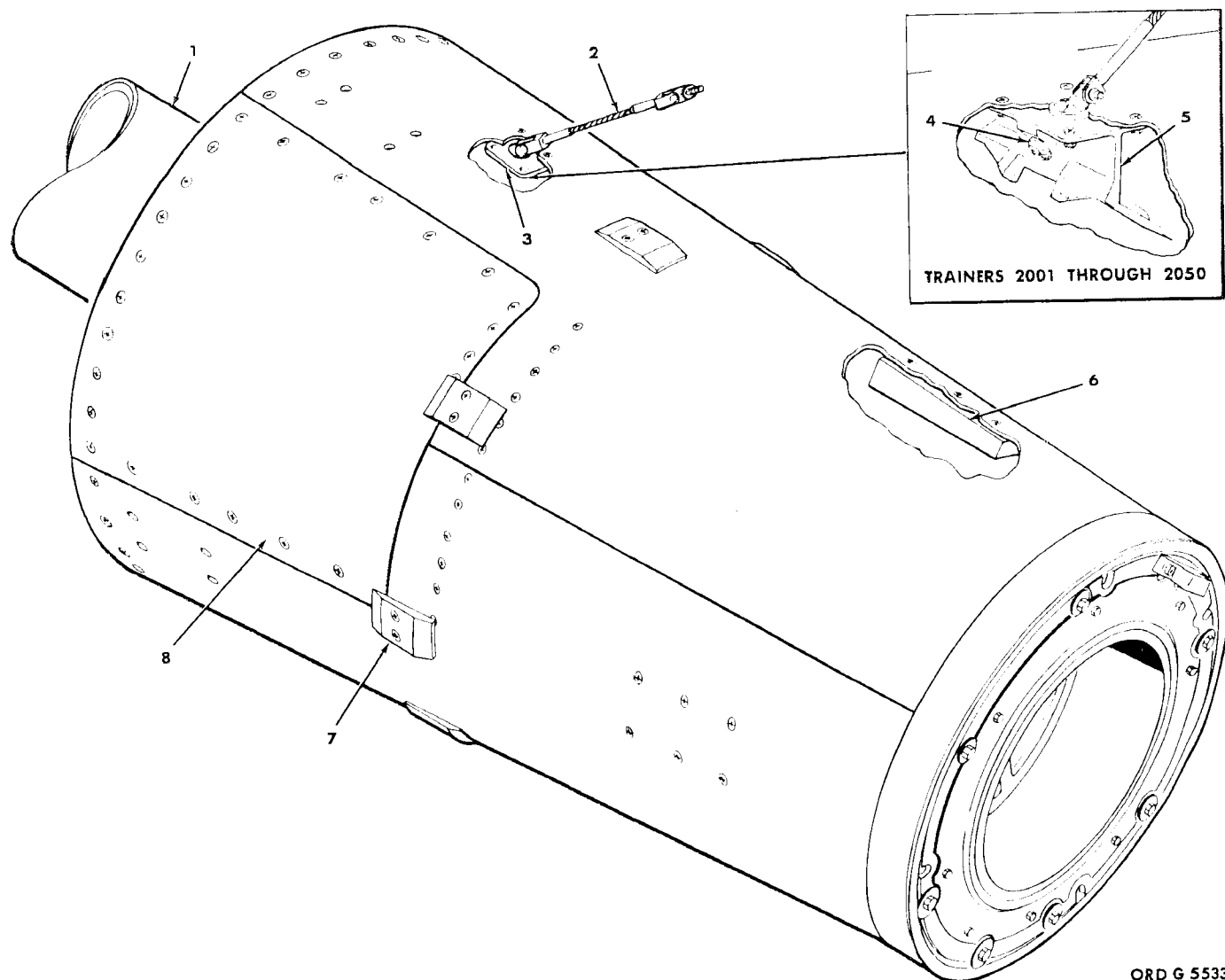
2—Equipment section access cover plate

3—Cable support

4—Trainer umbilical cable assembly

5—Trainer blast tube and closure installation

Figure 14-3. Trainer equipment section.



ORD G 5533

- 1—Trainer blast tube and closure installation
- 2—Lanyard assembly
- 3—Plate
- 4—Plug

- 5—Bracket assembly
- 6—Ballast (3)
- 7—Alignment spacers (8)
- 8—Actuator section door assembly (2)

Figure 14-4. Trainer actuator section.

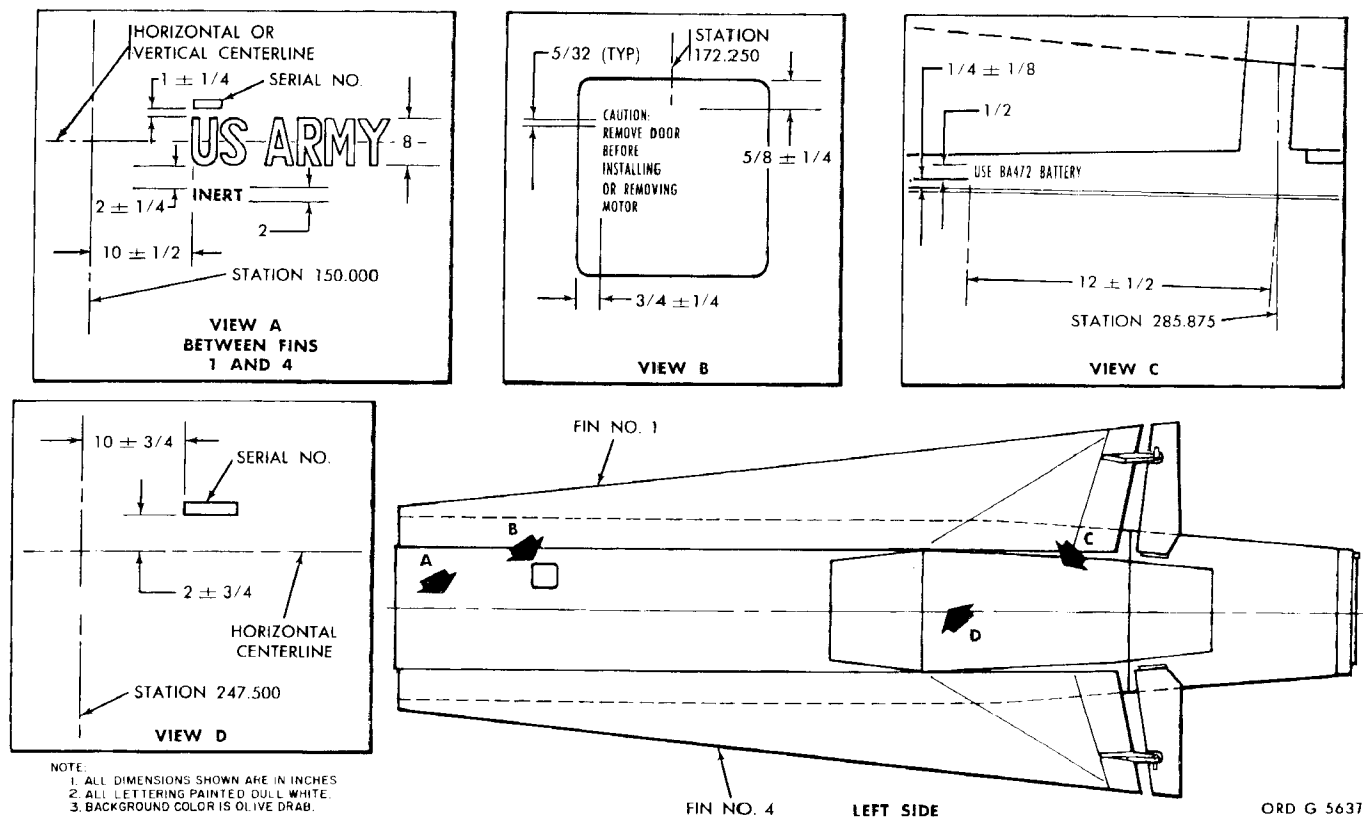
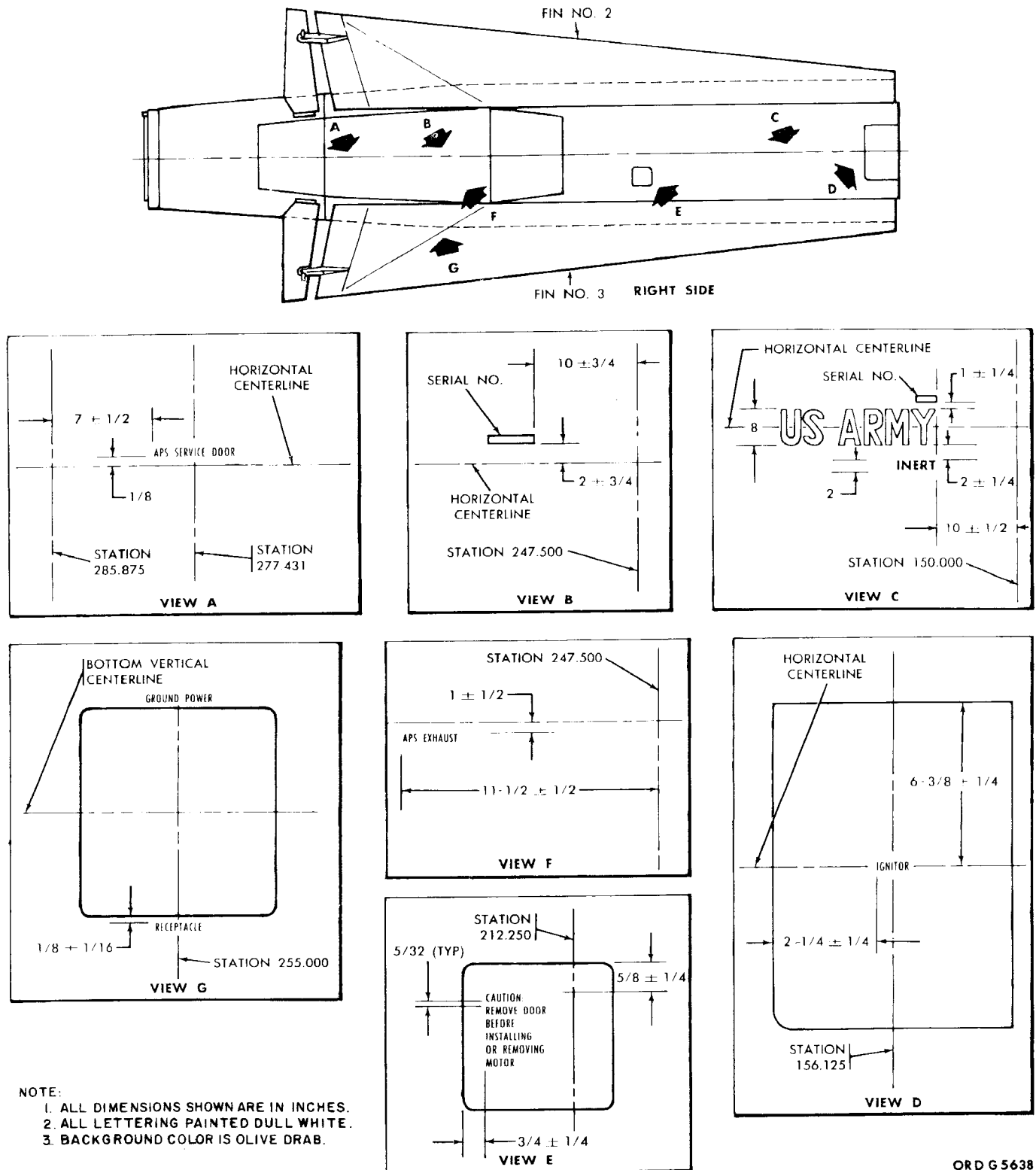


Figure 14-5. Trainer body section external markings (Sheet 1 of 2).



ORD G 5638

Figure 14-5. Trainer body section external markings (Sheet 2 of 2).

SECTION III. SHIPMENT, INSPECTION, AND UNCRATING

14-9. Shipment of Training Body Section
M84 Components

a. General. The training body section M84 is normally shipped to the using organization in the major components listed below.

(1) The trainer body section.

(2) The trainer main fins.

b. Trainer Body Section Container. The trainer body section is shipped in a trainer body section shipping crate, or a trainer body section shipping box. Each contains the trainer body section, the forward dome dummy heater assembly, the forward dome heater assembly cap, the lanyard assembly, and attaching hardware.

(1) (Deleted)

(2) The trainer body section shipping crate (fig. 14-6) is a wooden framework. A protective cover is provided for the components.

(3) The trainer body section shipping box (fig. 14-7) is a wooden box with a removable cover.

c. Trainer Main Fin Shipping Container. The trainer main fins are shipped either in a trainer main fin shipping crate (fig. 14-8) or a trainer main fin shipping box (fig. 14-9). Each contains the trainer forward main fins, trainer rear main fins, trainer elevons, and attaching hardware.

14-10. Inspection of Container

a. Trainer Body Section Shipping Crate (fig. 14-6).

(1) Inspect the shipping crate for exterior damage.

(2) Inspect for evidence of tampering or broken shipping straps.

(3) Inspect the protective cover for damage.

(4) Report any damage or evidence of tampering to the proper authorities.

b. Training Body Section Shipping Box (fig. 14-7). Inspect the box using the procedures prescribed in *a* (1), (2), and (4) above.

c. (Deleted)

d. Trainer Main Fin Shipping Crate (fig. 14-8).

(1) Inspect the shipping crate for exterior damage.

(2) Inspect for evidence of tampering or broken brace.

(3) Inspect the protective cover for damage.

(4) Report any damage or evidence of tampering to the proper authorities.

e. Trainer Main Fin Shipping Box (fig. 14-9). Inspect the box, using the procedures prescribed in *a* (1), (2), and (4) above.

14-11. Removal of the Trainer Body Section
from the Trainer Body Section
Shipping Crate

a. Remove the braces (1, fig. 14-6) from the top of the shipping crate.

b. Remove the diagonals (3) from the top of the shipping crate.

c. Remove the headers (4).

d. Cut the shipping straps (6) that secure the trainer body section (7) to the shipping crate. Remove the cushioning material (2).

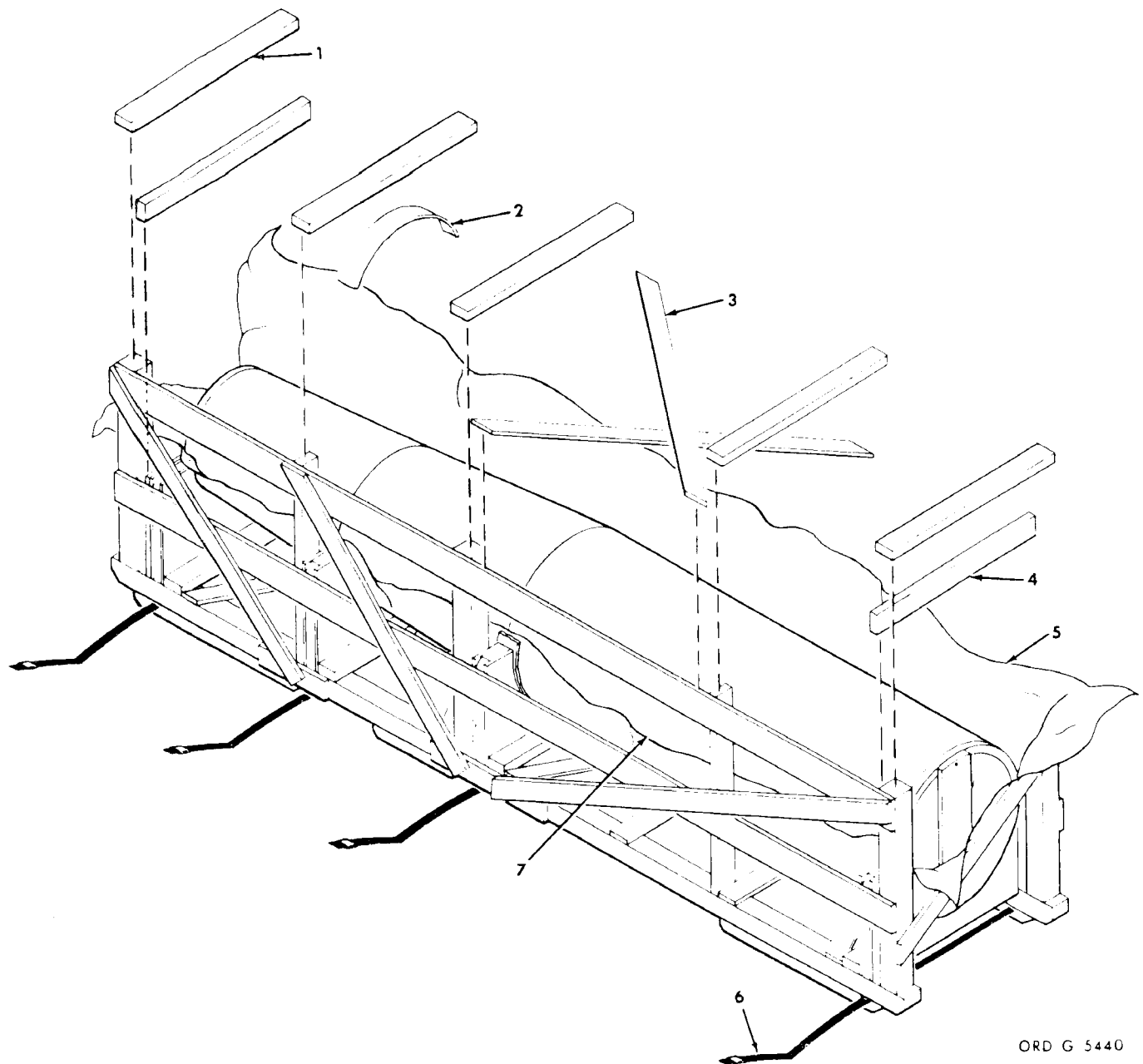
e. Remove the protective cover (5) from the top of the trainer body section.

f. Remove the two plugs (1 and 5, fig. 3-11) from the trainer body section hoist beam attach points on the top of the trainer body section.

WARNING: Check that the threads of the captive bolts (3) in the rear body section hoist beam (4) and the bolt holes in the rear body section are in good condition.

g. Position the rear body section hoist beam on top of the trainer body section; secure with the two captive bolts and safety strap assemblies (2).

h. Position a hoisting device capable of lifting 6,000 pounds, and attach the device to the rear body section hoist beam; take up the slack in the cable.



ORD G 5440

- 1—Brace (5)
- 2—Cushioning material (4)
- 3—Diagonal (2)

- 4—Header (2)
- 5—Protective cover
- 6—Shipping strap (4)

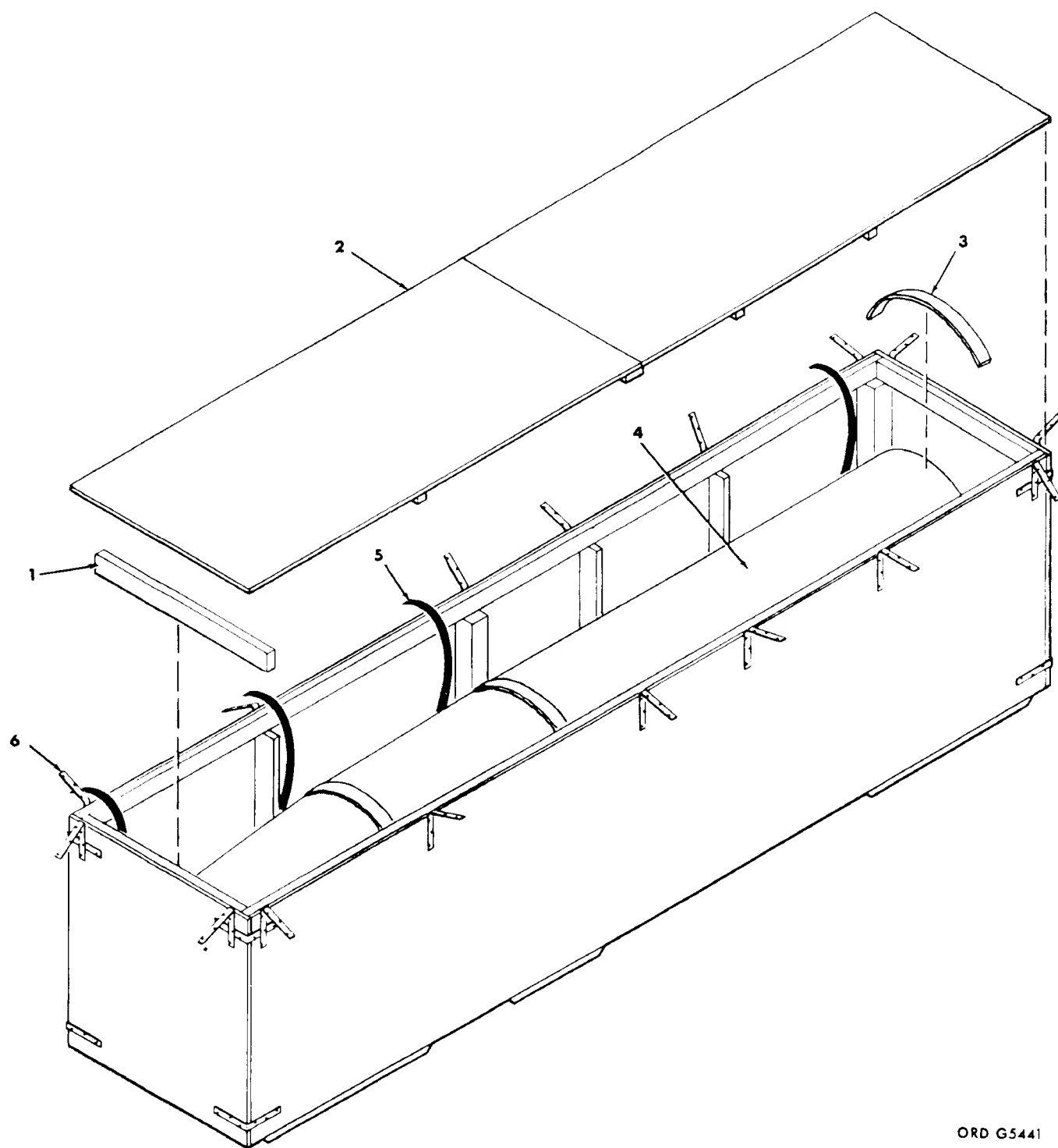
7—Trainer body section

Figure 14-6. Removal and installation of the trainer body section from the shipping crate.

Caution: Care should be exercised to prevent damage to the trainer umbilical cable assembly and the trainer wiring harnesses as the trainer body section is lifted from the shipping crate.

i. Slowly raise the trainer body section until it is just clear of the shipping crate.

j. Move the trainer body section away from the crate.

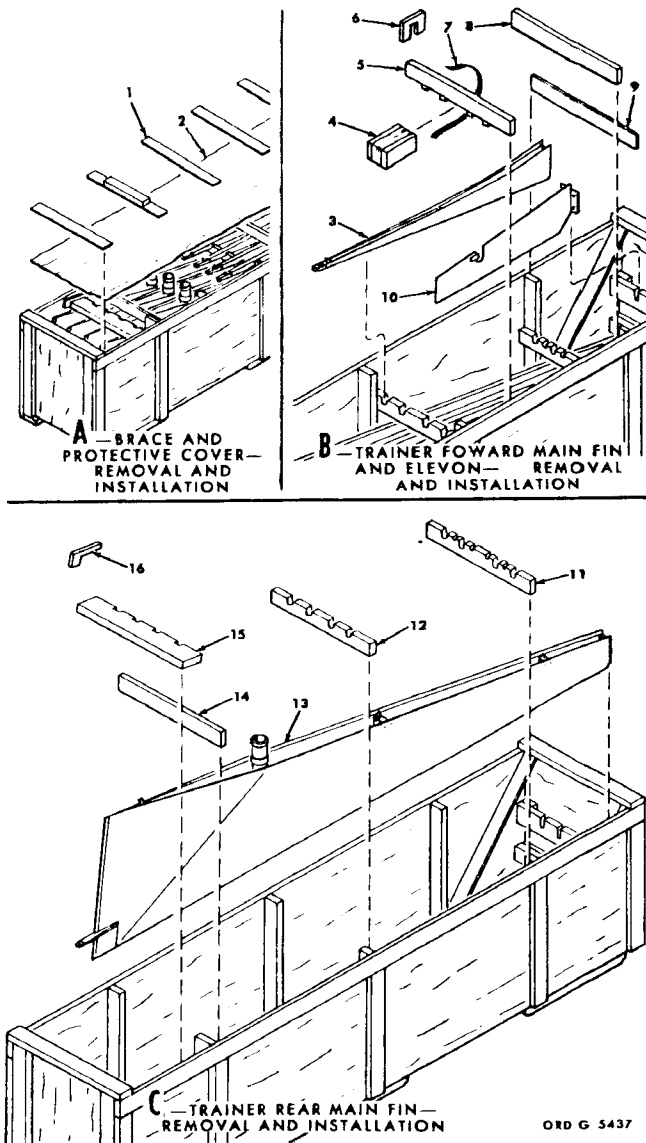


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- 1—Header (2)
- 2—Cover
- 3—Cushioning material

- 4—Trainer body section
- 5—Shipping strap (4)
- 6—Metal strap (16)

Figure 14-7. Removal and installation of the trainer body section from the shipping box.



- 1—Cover brace (7)
- 2—Protective cover
- 3—Trainer forward main fin (4)
- 4—Box
- 5—Support block
- 6—Holddown block (2)
- 7—Strap
- 8—Forward brace
- 9—Rear brace
- 10—Trainer elevon (4)
- 11—Support
- 12—Support
- 13—Trainer rear main fin (4)
- 14—Brace
- 15—Support
- 16—Holddown block (2)

Figure 14-8. Removal and installation of the fins from the trainer main fin shipping crate.

k. Remove the plugs (8) from the handling ring segment (7) mounting holes on the forward end of the trainer body section.

Warning: Check that the threads of the captive bolts (6) in the handling ring segments (7) and the bolt holes of the trainer body section are in good condition.

l. Position the handling ring segments on the top and bottom of the forward end of the trainer body section with the AFT markings on the handling ring segments facing the rear of the trainer body section; secure in position with the captive bolts. Tighten the captive bolts to the torque value prescribed in table 15-9.

Note. The rear roll ring is clamped and stowed on the forward cradle of the missile body truck.

m. Position the rear roll ring (fig. 3-12) on the rear of the trainer body section, and secure with the captive bolts.

n. Position the handling ring segments (6, fig. 3-13) on the sides of the forward end of the trainer body section (3), with the AFT markings on the segments facing the rear of the trainer body section. Secure in position with the captive bolts (6, fig. 3-11).

o. Position the trainer body section on the missile body truck (8, fig. 3-13) by placing the handling ring segments in the rear cradle (7) and the rear roll ring (2) in the forward cradle (10).

Caution: Make certain the rear roll ring is fully seated in the groove of the wheel (11).

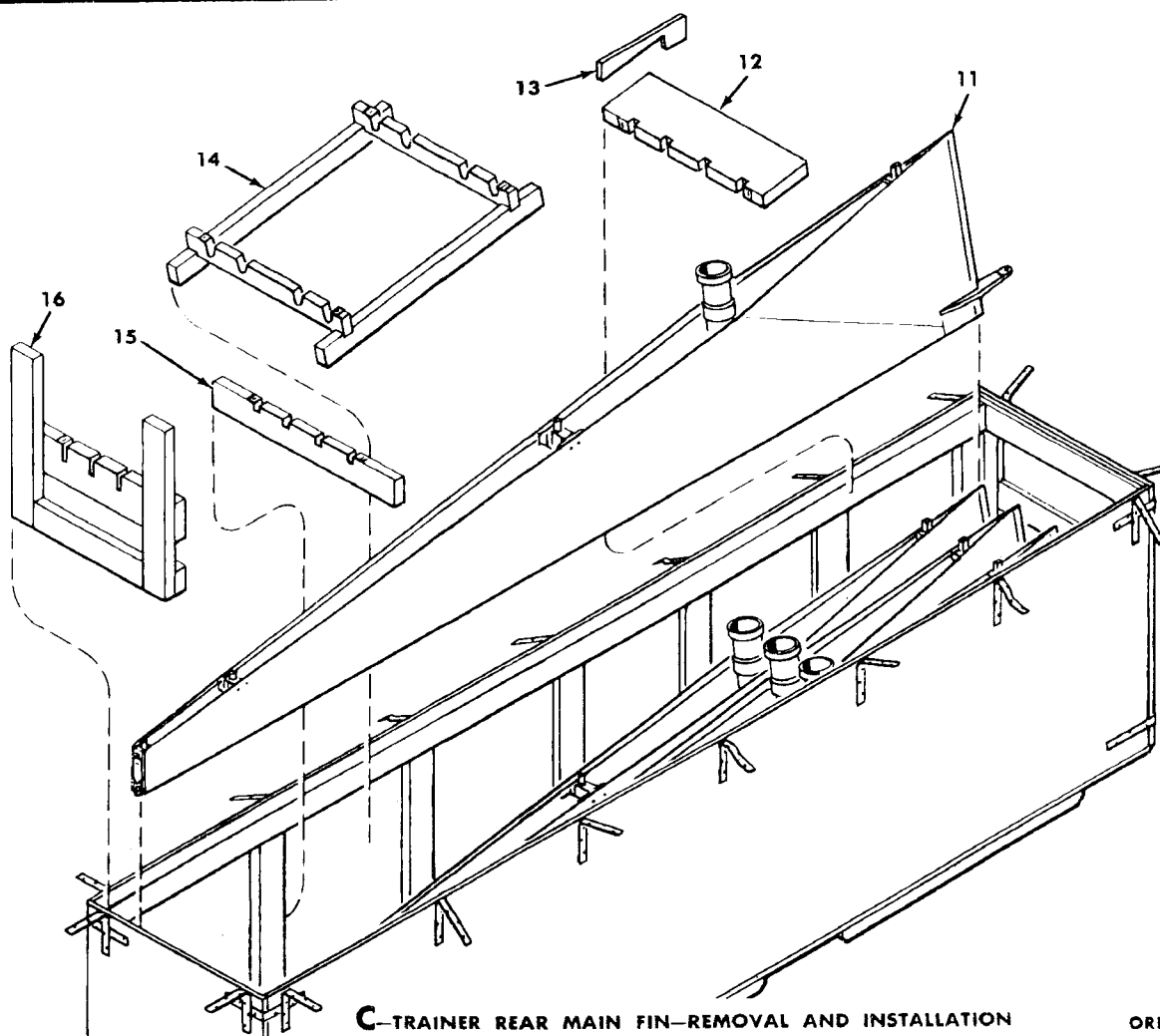
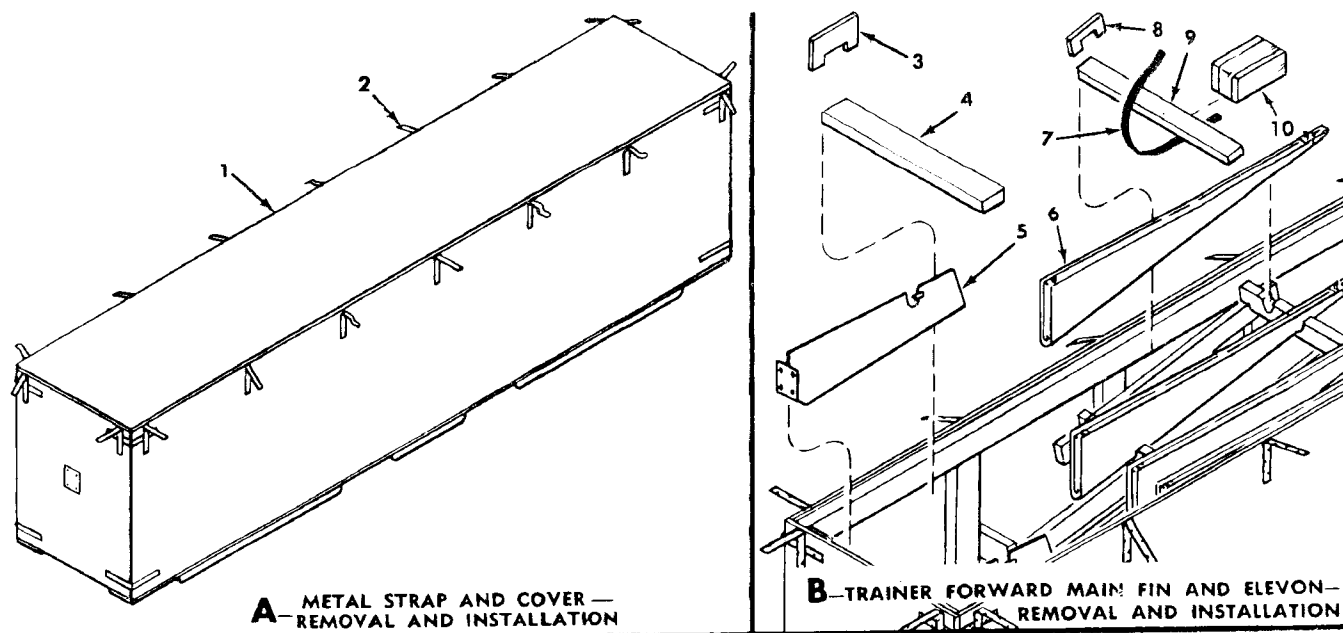
p. Lock the trainer body section in position on the missile body truck with the self-locking pins (view A, fig. 9-1).

q. Remove the hoist hook from the hoist beam.

r. Loosen the captive bolts (3, fig. 3-11) and safety strap assemblies (2) on the rear body section hoist beam (4); remove the hoist beam.

s. Coat the threads of the plugs (1 and 5) liberally with soft-film corrosion preventive compound before installing in the trainer body section.

t. Install the plugs in the hoist beam attach points on the top of the trainer body section.



ORD G 5443

Figure 14-9. Removal and installation of the fins from the trainer main fin shipping box.

- 1—Cover
- 2—Metal strap (18)
- 3—Holddown block (2)
- 4—Brace
- 5—Trainer elevon (4)
- 6—Trainer forward main fin (4)
- 7—Strap
- 8—Holddown block (2)

- 9—Support block
- 10—Box
- 11—Trainer rear main fin (4)
- 12—Trainer rear main fin support
- 13—Holddown block (2)
- 14—Trainer forward main fin support
- 15—Support block
- 16—Rear support

Figure 14-9—Continued.

u. Remove the forward dome dummy heater assembly from the forward end of the trainer body section.

v. Remove, inspect, and inventory the accessories and hardware shipped inside the trainer body section against the enclosed packing list.

w. Report any damage or missing parts to the proper authorities.

x. Remove the hexagon-head bolts (5, fig. 3-14) flat washers (4), and shipping tapes (6) that secure the trainer transponder control group wiring harness (6, fig. 14-2) and the trainer warhead wiring harness (3) to the forward end of the trainer body section at fin positions 3 and 4.

y. Place the braces and the protective cover in the trainer body section shipping crate.

14-12. Removal of the Trainer Body Section from the Trainer Body Section Shipping Box

a. Remove the metal straps (6, fig. 14-7) that secure the cover (2) of the shipping box; remove the cover.

b. Remove the headers (1).

c. Cut the shipping straps (5) that secure the trainer body section (4) to the shipping box. Remove the cushioning material (3).

d. Remove the trainer body section from the shipping box (par. 14-11f through r).

e. Place the metal straps, headers, cushioning material, and the shipping straps in the shipping box.

14-13. Removal of the Trainer Rear Main Fins, Trainer Forward Main Fins, and the Trainer Elevons from the Trainer Main Fin Shipping Crate

a. Remove the cover braces (1, fig. 14-8) from the top of the trainer main fin shipping crate.

b. Remove the protective cover (2) from the top of the shipping crate.

c. Remove the accessory package from the shipping crate.

d. Cut the strap (7), and remove the box (4) containing the hardware from the support block (5) in the top of the shipping crate.

e. Remove the holddown blocks (6), support block, forward brace (8), and the rear brace (9) that secure the trainer forward main fins (3) and the trainer elevons (10).

f. Remove the trainer forward main fins and the trainer elevons.

g. Remove the supports (11 and 12), brace (14), holddown blocks (16), and support (15) that secure the trainer rear main fins (13) in the shipping crate.

h. Remove the trainer rear main fins.

i. Place all the shipping crate components in the shipping crate.

j. Inventory all the parts removed from the shipping crate against the enclosed packing list.

k. Report any damaged or missing parts to the proper authorities.

14-14. Removal of the Trainer Body Section from the Rear Body Section and Forward Body Section Container

a. Remove the trainer body section from the rear body section and forward body section container, using the applicable procedures prescribed in paragraph 3-6.

b. Uncrate the training forward body section, using the applicable procedures prescribed in paragraph 3-6.

14-15. Removal of the Trainer Rear Main Fins, Trainer Forward Main Fins, and Trainer Elevons from the Trainer Main Fin Shipping Box

- a. Remove the metal straps (2, fig. 14-9) that secure the cover (1) of the shipping box; remove the cover.
- b. Cut the strap (7), and remove the box (10) containing the hardware from the support block (9) in the top of the shipping box.
- c. Remove the holddown blocks (8), support block, holddown blocks (3), and brace (4) that secure the trainer forward main fins (6) and the trainer elevons (5) in the shipping box.

d. Remove the trainer forward main fins and the trainer elevons.

e. Remove the rear support (16), support block (15), trainer forward main fin support (14), holddown blocks (13), and trainer rear main fin support (12).

f. Remove the trainer rear main fins (11).

g. Place all the shipping box components in the shipping box and replace the cover.

h. Inventory all the parts removed from the shipping box against the enclosed packing list.

i. Report any damaged or missing parts to the proper authorities.

Section IV. ASSEMBLY PROCEDURES

14-16. Removal of the Trainer Access Doors, Cover Plates, and Door Assemblies

Note. All torque values prescribed in this section by reference to assembly procedures in chapter 3 will be reduced to one-half of normal values.

Note. The access doors, cover plates, and door assemblies on trainer body sections 2001 through 2050 were drilled on assembly and must be replaced in the locations and positions from which they were removed.

Note. On trainer body sections 1001 through 1160, the trainer motor section access doors are secured with 39 flathead screws. On trainer body sections 2001 through 2050, the trainer motor section access doors are secured with 64 flathead screws.

a. Remove the trainer motor section access doors, using the applicable procedures prescribed in paragraph 3-8.

b. Remove the trainer equipment section access cover plates, using the applicable procedures prescribed in paragraph 3-8.

Note. On trainer body sections 1001 through 1160, the actuator section door assemblies are secured with 32 flathead screws. On trainer body sections 2001 through 2050, the actuator section door assemblies are secured with 51 flathead screws.

Note. One alinement spacer overlaps each actuator section door assembly on trainer body sections 2001 through 2050. Two alinement spacers overlap each actuator section door assembly on trainer body sections 1001 through 1160.

c. Remove the trainer actuator section door assemblies, using the applicable procedures prescribed in paragraph 3-8.

14-17. Installation of the Trainer Rear Main Fins

Note. The trainer rear main fins are installed on the rear body section trainer.

Install the trainer rear main fins, using the applicable procedures prescribed in paragraph 3-11.

14-18. Installation of the Trainer Elevons

a. Install the pin ((2), fig. 14-10) of the trainer elevon in the trainer rear main fin fitting (1).

b. Aline the holes in the elevon with the holes in the trainer actuator section.

c. Secure the elevon (3) to the actuator section with the hexagon-head capscrews (4) and flat washers (5).

d. Tighten the capscrews to a torque value of 60 pound-inches.

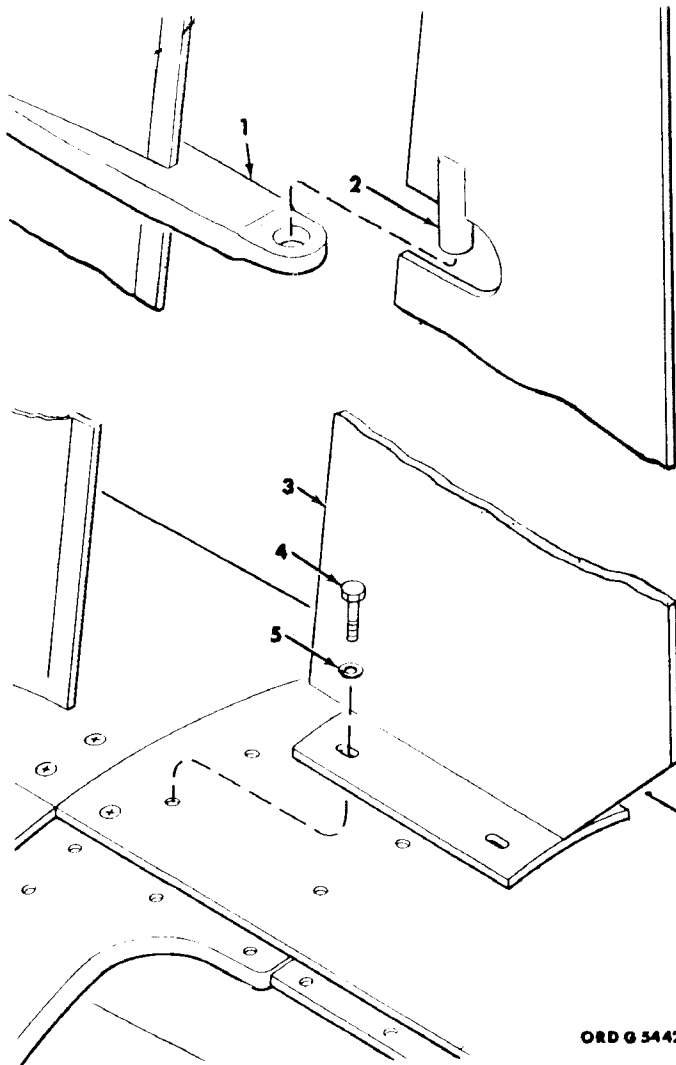
e. Repeat steps a through d above to install the three remaining elevons.

14-19. Uncrating and Installation of the Inert Rocket Motor Subassembly

Uncrate and install the inert rocket motor subassembly, using the applicable procedures prescribed in paragraphs 5-1 through 5-10.

14-20. Uncrating and Installation of the Training Warhead Section

a. Uncrate and install the training warhead section using the applicable procedures prescribed in paragraphs 6-1 through 7-1.



ORD G 5442

- 1—Trainer rear main fin fitting
- 2—Pin
- 3—Trainer eleven
- 4—1/4-28 x 7/8 hex-hd cap screw (4)
- 5—1/4 fl washer

Figure 14-10. Removal and installation of the trainer eleven.

Note. The trainer forward main fin is installed on the training warhead section. A pin is incorporated in the front fitting of the trainer forward main fin to mate with the training warhead section.

b. Install the trainer forward main fins, using the applicable procedures prescribed in paragraph 7-5.

14-21. Uncrating and Installation of the Training Forward Body Section

Install the training forward body section, using the applicable procedures prescribed in paragraph 7-6.

14-22. Installation of the Trainer Access Doors, Cover Plates, and Door Assemblies

Note. Access doors, cover plates, and door assemblies on trainer body sections 2001 through 2050 were drilled on assembly and must be replaced in the locations and positions from which they were removed.

Note. Trainer body sections 1001 through 1160 equipped with two trainer motor section access doors 10119278; each is secured with fifteen 1/4-28 x 17/32 flathead screws. Trainer body sections 2001 through 2050 are equipped with two trainer motor section access doors 8524410; each is secured with sixty-four 1/4-28 x 21/32 flathead screws.

a. Install the trainer motor section access doors (fig. 3-20).

Note. Trainer body sections 1001 through 1160 are equipped with two equipment section access cover plates 9028165, one on each side of the trainer equipment section. Trainer body sections 2001 through 2050 are equipped with trainer equipment section access cover plate 8524628 on the left side and trainer equipment section access cover plate 8524629 on the right side.

Note. On trainer body sections 1001 through 1160, the equipment section access cover plates with APS placard are installed on the right side.

b. Install the trainer equipment section access cover plates.

Note. Trainer body sections 1001 through 1160 are equipped with two trainer actuator section door assemblies; each is secured with thirty-two 1/4-28 x 21/32 flathead screws.

Note. On trainer body sections 1001 through 1160, the alignment spacers on the outside of the actuator section are located 10 degrees clockwise from the positions of the spacers on trainer body sections 2001 through 2050.

c. Install the trainer actuator section door assemblies.

14-23. Uncrating and Installation of the Rocket Motor Cluster Trainer

Uncrate and install the rocket motor cluster trainer on the launcher using the applicable procedures prescribed in paragraphs 8-1 and 9-1 through 9-3.

14-24. Joining the Missile Body Trainer and the Rocket Motor Cluster Trainer

Join the missile body trainer and the rocket motor cluster trainer, using the applicable procedures prescribed in paragraphs 9-1 and 9-2.

14-25. Final Preparation of the Missile Trainer on the Launcher

Prepare the missile trainer on the launcher using the applicable procedures prescribed in paragraphs 10-1 through 10-5.

14-26. Postmating Assembly Tests

Perform the postmating assembly tests as prescribed in TM 9-1100-251-12.

SECTION V. DISASSEMBLY PROCEDURES**14-27. Preliminary Procedures**

Perform the applicable preliminary procedures prescribed in paragraph 11-4.

14-28. Removal of the Missile Body Trainer from the Launcher

Remove the missile body trainer from the launcher using the applicable procedures prescribed in paragraphs 11-10 and 11-11.

14-29. Removal of the Rocket Motor Cluster Trainer from the Launcher

Remove the rocket motor cluster trainer from the launcher, using the applicable procedures prescribed in paragraphs 11-12 and 11-13.

14-30. Removal of the Training Forward Body Section

Remove the training forward body section using the applicable procedures prescribed in paragraphs 11-14 and 11-15.

14-31. Removal of the Trainer Forward Main Fins and Preparation for Removal of the Training Warhead Section

a. Remove the trainer forward main fins as prescribed in paragraph 11-16.

b. Remove the trainer transponder control group wiring harness (6, fig. 14-2), using the applicable procedures prescribed in paragraph 11-18.

c. Remove the trainer warhead wiring harness (3, fig. 14-2), using the applicable procedures prescribed in paragraph 11-19.

14-32. Removal of the Training Warhead Section

Remove the training warhead section, using the applicable procedures prescribed in paragraphs 11-4 through 11-22.

14-33. Removal of the Inert Rocket Motor Subassembly

Remove the inert rocket motor subassembly, using the applicable procedures prescribed in paragraphs 11-23 through 11-25.

14-34. Removal of the Trainer Elevons

a. Remove the hexagon-head capscrews (4, fig. 14-10) and flat washers (5) that secure the trainer elevon (3) to the trainer actuator section.

b. Lift the pin (2) on the trainer elevon out of the trainer rear main fin fitting (1).

c. Remove the trainer elevon.

d. Repeat steps a through c above to remove the three remaining trainer elevons.

14-35. Removal of the Trainer Rear Main Fins

Remove the trainer rear main fins (par. 11-33).

14-36. Preparation of the Trainer Body Section for Shipment of Storage

The trainer body section is prepared for shipment or storage either in a rear body section and forward body section container, a trainer body section shipping crate, or a trainer body section shipping box.

a. *Rear Body Section and Forward Body Section Container.* Prepare the trainer body section for shipment or storage, using the applicable procedures prescribed in paragraphs 11-35 through 11-37.

b. *Trainer Body Section Shipping Crate.*

(1) Remove the braces (1, fig. 14-6) and the protective cover (5) stowed in the trainer body section shipping crate.

(2) Position the shipping straps (6) and the protective cover as shown in figure 14-6.

(3) Spread the braces of each trainer wiring harness, and install a hexagon-head bolt (5, fig. 3-14) and flat washer (4) into each lower main fin mounting bolt hole. Tape the wiring harnesses to the hexagon-head bolts.

(4) Remove the plugs (1 and 5, fig. 3-11) from the hoist beam attach points on the top of the trainer body section.

(5) Position the rear body section hoist beam (4) on the top of the trainer body section; secure with the captive bolts (3) and safety strap assemblies (2).

(6) Position a hoisting device capable of lifting 6,000 pounds, and attach the hoist beam to the hoisting device.

(7) Release the lock pin (fig. 9-1) from the rear roll ring and the self locking pins from the handling ring segment.

(8) Lift the trainer body section clear of the missile body truck (8, fig. 3-13).

(9) Loosen the captive bolts (view B, fig. 9-15 and 2, fig. 9-17) that secure the handling ring segments; remove the segments.

(10) Install the plugs (8, fig. 3-11) in the upper and lower segment mounting bolt holes.

(11) Loosen the captive bolts (view A, fig. 9-15) that secure the rear roll ring to the trainer body section; remove the rear roll ring, and store on the missile body truck.

(12) Position the trainer body section over the trainer shipping crate.

(13) Place the forward dome heater assembly cap in the forward dome dummy heater assembly, and secure with cord.

(14) Place the forward dome dummy heater assembly in the forward end of the trainer motor section.

(15) Manipulate the trainer body section until properly seated in the shipping crate supports.

(16) Remove the hoisting device.

(17) Loosen the captive bolts (3, fig. 3-11) and safety strap assemblies (2) that secure the hoist beam; remove the hoist beam.

(18) Install the plugs (1 and 5) in the hoist beam attach points.

(19) Position the protective cover (5, fig. 14-6) over the trainer body section (7).

(20) Position the cushioning material (2) at each point on the trainer body section where a shipping strap will be used.

(21) Install the headers (4) at the forward and rear ends of the shipping crate.

(22) Secure the trainer body section to the shipping crate with the shipping straps (6) and the cushioning material.

(23) Install the diagonals (3).

(24) Install the braces (1).

c. Trainer Body Section Shipping Box.

(1) Remove the metal straps (6, fig. 14-7), heater (1), cushioning material (3), and shipping straps (5) from the trainer body section shipping box.

(2) Position the shipping straps as shown in figure 14-7.

(3) Prepare the trainer body section for shipment as prescribed in *b* (3) through (18) above.

(4) Position the cushioning material at each point on the trainer body section where a shipping strap will be used.

(5) Install the headers at the forward and rear ends of the shipping box.

(6) Secure the trainer body section (4) to the shipping box with the shipping straps.

(7) Position the cover (2) on the shipping box, and secure with the metal straps.

14-37. Packaging Trainer Rear Main Fins, Trainer Forward Main Fins, and Trainer Elevons for Shipment or Storage

The trainer forward main fins, trainer rear main fins, and trainer elevons are packaged in either a trainer main fin shipping crate or a trainer main fin shipping box.

a. Trainer Main Fin Shipping Crate.

(1) Position the trainer rear main fins (13 fig. 14-8) in the trainer main fin shipping crate.

(2) Install the supports (11 and 12), brace (14), support (15), and holddown blocks (16) in the shipping crate.

(3) Position the trainer elevons (10) and the trainer forward main fins (3) in the shipping crate.

(4) Install the support block (5), braces (8 and 9), and holddown blocks (6).

(5) Place the hardware in the box (4) and secure to the support block with the strap (7).

(6) Position the protective cover (2) on the shipping crate.

(7) Install the cover braces (1).

b. Trainer Main Fin Shipping Box.

(1) Position the trainer main fins (11, fig. 14-9) in the trainer main fin shipping box.

(2) Install the trainer rear main fin support (12), holddown blocks (13), trainer forward main fin support (14), support block (15), and rear support (16).

(3) Position the trainer elevons (5) and the trainer forward main fins (6) in the shipping box.

(4) Install the brace (4) and the hold-down blocks (3).

(5) Install the support block (9) and the holddown blocks (8).

(6) Place the hardware in the box (10) and secure to the support block with the strap (7).

(7) Place the cover (1) on the shipping box, and secure with the metal straps (2).

SECTION VI. CORRECTIVE MAINTENANCE

14-38. General

Corrective maintenance instructions provided in this section for the trainer body section do not establish the scope and limit of maintenance that may be performed by the using organization. The scope and limit are determined by the allocation of repair parts and tools authorized in TM 9-1410-250-25P/1/1.

14-39. Replacement of the Trainer Body Section Index Pin

Note. Trainer body sections 2001 through 2050 may be equipped with index pin 8162978 or 9029046. If index pin 8162978 is to be replaced, replace it and shim 9031201 with index pin 9029046.

Replace index pin as prescribed in paragraph 12-86.

14-40. Replacement of the Lanyard Assembly

Note. On trainer body sections 1001 through 1160, the lanyard assembly is attached to a metal plate. On trainer body sections 2001 through 2050, the lanyard assembly is attached to a bracket assembly and plug.

Replace the lanyard assembly, using the applicable procedures prescribed in paragraph 12-65.

14-41. Replacement of the Trainer Forward Main Fin

Note. The trainer forward main fin is installed on the training warhead section. A pin is incorporated in the front fitting of the trainer forward main fin to mate with the training warhead section.

a. Remove the trainer forward main fin (par. 11-16).

b. Install the trainer forward main fin (par. 7-5).